



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

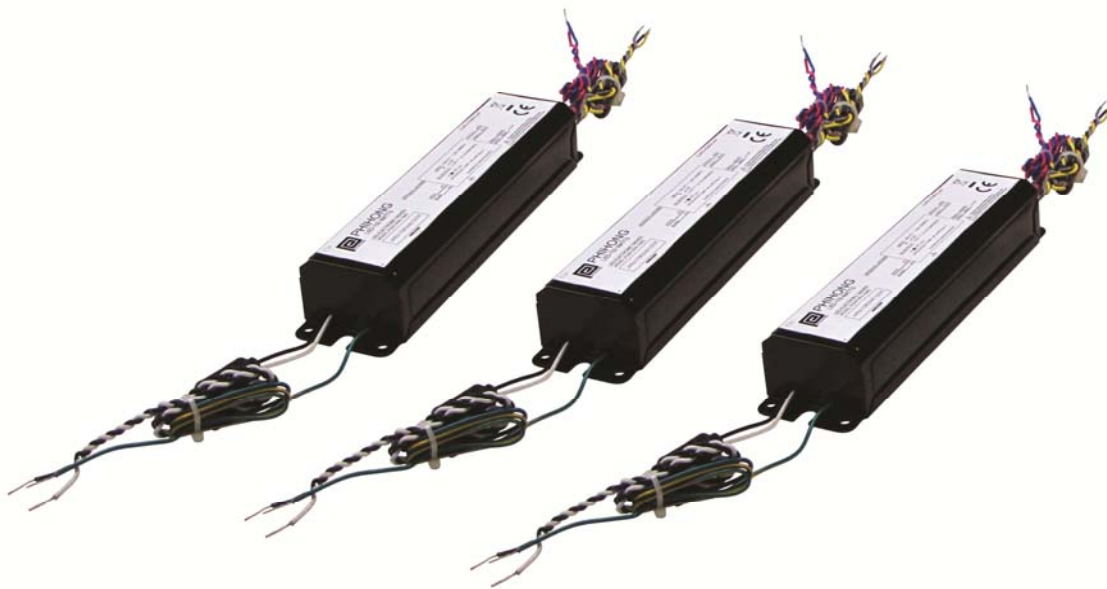
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





**PHIHONG'S 150W CONSTANT CURRENT DRIVERS WITH  
94% EFFICIENCY  
PROVIDE TRULY ADVANCED PERFORMANCE**



Output Voltage	Output Current	Output Power
0V~425V	0.35A	150W
0V~280V	0.53A	150W
0V~210V	0.7A	150W
0V~140V	1.05A	150W
0V~100V	1.5A	150W
0V~89V	1.68A	150W



PDA150W Series	
Brand Name	Phihong LED Driver
Description	150W, 0-10V Isolated Dimming with 20V Auxiliary Output for Peripherals
Input Voltage	120 ~ 277VAC
Input Frequency	50/60Hz
Safety	CE, UL, RoHS
IP Rating	IP66

**Electrical Specifications:**

Output Power (W)	Output Voltage (V)	Output Current (A)	Tcase Max (C)	Input Current (A)	Input Power (W)	Inrush Current	Max THD (%)	Min Power Factor	Surge Protection (KV)	Part Number
150	0V~425V	0.35	80	1.4A@120VAC 0.6A@277VAC	164	≤ 30A	12	0.9	4.0	PDA150W-S350G-R
150	0V~280V	0.53								PDA150W-S530G-R
150	0V~210V	0.7								PDA150W-S700G-R
150	0V~140V	1.05								PDA150W-S1A0G-R
150	0V~100V	1.5								PDA150W-S1A5G-R
150	0V~89V	1.68								PDA150W-S1A7G-R

**Wiring Diagram**



Input, Output, 0-10V Dimming and Auxiliary use lead-wires. Lead-wires are 18AWG 105C/600V solid Copper.

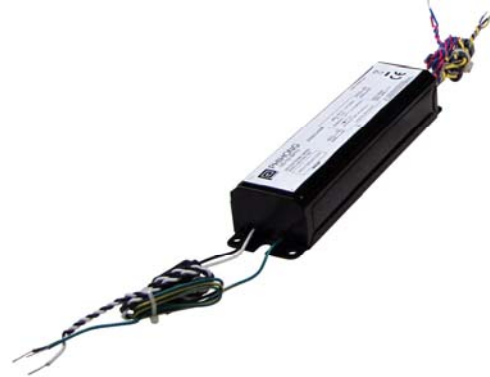
**Standard Lead Length**

Color	In.	Cm.
Black	10	25
White	10	25
Blue	10	25
Red	10	25
Gray	10	25
Violet	10	25
Yellow	10	25

**Maximum Wiring Distance (at Full Load)**

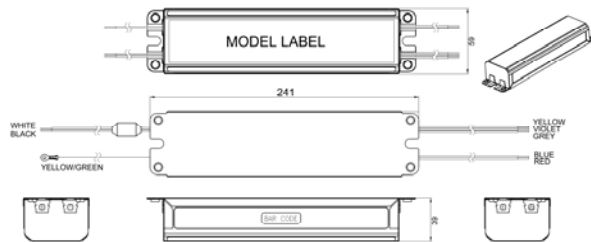
Wire Size (AWG)	Distance (Feet)
26	8
24	13
22	21
20	34
18	54
16	85
14	137
12	210
10	357

Dimming Method	Dimming Range	Min. Output Power (W)
0-10V	2%~100%	1.0



Length:	241mm (9.49in)
Width:	59mm (2.32in)
Height:	39mm (1.54in)
Weight	1043g (2.3lbs)

**Dimension Diagram**



**PHIHONG TECHNOLOGY CO., LTD.**

47800 Fremont Blvd., Fremont, CA 94538 • T: 1-510-445-0100 • [www.phihong.com/LED](http://www.phihong.com/LED)

Revision 7/2/2014



<b>PDA150W Series</b>	
<b>Brand Name</b>	<b>Phihong LED Driver</b>
<b>Description</b>	<b>150W, 0-10V Isolated Dimming with 20V Auxiliary Output for Peripherals</b>
<b>Input Voltage</b>	<b>120 ~ 277VAC</b>
<b>Input Frequency</b>	<b>50/60Hz</b>
<b>Safety</b>	<b>CE, UL, RoHS</b>
<b>IP Rating</b>	<b>IP66</b>

## **Installation & Application Notes:**

### Section I – Physical Characteristics

- 1.1 LED Driver shall be installed inside an electrical enclosure.
- 1.2 Wiring inside electrical enclosure shall comply with 600V/105°C rating or higher.

### Section II – Performance

- 2.1 LED Driver complies with UL standard UL8750
- 2.2 LED Driver has Class A sound rating.
- 2.3 LED Driver has a minimum ambient operating temperature of -40°C.
- 2.4 LED Driver has a life expectancy of 50,000 hours at Tcase of ≤80°C.
- 2.5 LED Driver has a life expectancy of 100,000 hours at Tcase of ≤65°C.
- 2.6 LED Driver has a typical self rise of 25°C at maximum load in open air without heat sink.
- 2.7 LED Driver maximum allowable case temperature is 80°C – see product label for measurement location.
- 2.8 LED Driver reduces output power to LEDs if max allowable case temperature is exceeded.
- 2.9 LED Driver has a failure rate of ≤0.01% per 1,000 hours at Tcase ≤70°C.
- 2.10 LED Driver tolerates sustained open circuit and short circuit output conditions without damage.
- 2.11 LED Driver complies with the requirements of the Federal Communications Commission (FCC) rules and regulations, Title 47 CFR Part 15 Non-Consumer (Class B).

### Section III – UL Conditions of Acceptability (File E321253)

When installed in the end-use equipment, the following are among the considerations to be made:

- 3.1 The equipment shall be installed in compliance with the enclosure, mounting, spacing, casualty and segregation requirements of the ultimate application.
- 3.2 Consideration should be given to measuring the temperatures on electronic components of power circuits and transformer windings when the unit is installed in the end-use equipment based upon mounting orientation, operating ambient and ventilation.
- 3.3 These drivers should be used within the recognized ratings.
- 3.4 The driver is suitable for use in “DAMP” and “DRY” locations.
- 3.5 The maximum available output parameters from the (0-10V) dimming circuit provided on LED driver model PDA150W Series were tested in accordance with supplement (SB) of UL935 and was found permissible for connection via Class 2 wiring.
- 3.6 When the drivers are installed in the end-use application, the case temperature should not exceed the temperature limit specified.
- 3.7 The maximum measured leakage current was 0.2mA while connected to a 277V source of supply.

## **PHIHONG TECHNOLOGY CO., LTD.**

47800 Fremont Blvd., Fremont, CA 94538 • T: 1-510-445-0100 • [www.phihong.com/LED](http://www.phihong.com/LED)

Revision 7/2/2014



<b>PDA150W Series</b>	
<b>Brand Name</b>	<b>Phihong LED Driver</b>
<b>Description</b>	<b>150W, 0-10V Isolated Dimming with 20V Auxiliary Output for Peripherals</b>
<b>Input Voltage</b>	<b>120 ~ 277VAC</b>
<b>Input Frequency</b>	<b>50/60Hz</b>
<b>Safety</b>	<b>CE, UL, RoHS</b>
<b>IP Rating</b>	<b>IP66</b>

## Electrical Specifications

### Input:

**AC Input Voltage Range**  
90VAC to 305VAC

**AC Input Frequency**  
47~63Hz

**Maximum Input Current**  
≤ 2A

**Leakage Current**  
0.5mA maximum at 277VAC Input

**Inrush Current**  
≤ 30A

**OUTPUT:**  
**Power Factor**  
≥ 0.9

**Ripple and Noise**  
≤ 5% of the Output Current

**Efficiency (Typical)**  
94% at 230~ 277VAC  
92% at 120VAC

**Turn-on Delay Time**  
<1s maximum at nominal AC Power ON

### Environmental:

**Temperature**  
Operation -40 to +85°C (\*)  
Non-operation -40 to +85°C  
Operating Humidity 10 to 95%  
(\* Case Temperature <80°C

**Dimming Function**  
**Dimming Control**  
0-10VDC

**Dimming Grounding**  
Dim(-) and Vout(-) must never be connected together to ensure proper operation and isolation requirements

**Aux Grounding**  
Aux return and Dim return are common

### EMC

EN55015/CISPR 15/FCC 47 Part 15/18 Class A

### Immunity

IEC61000-4-2  
IEC61000-4-3  
IEC61000-4-4  
IEC61000-4-5  
IEC61000-4-6  
IEC61000-4-8  
IEC61000-4-11  
IEC61000-3-2 Class C

### Output Over Current Protection

The power supply will withstand continuous output overload

### Short-Circuit Protection

The PSU will withstand a short circuit across the outputs without damage

### Over Voltage Protection

Output is protected from no load and over voltage conditions

### Dielectric Withstand (Hi-pot) Test

Primary to secondary: 4242VDC for 1 minute, 5.5mA

### Insulation Resistance

Primary to secondary: >5M Ohm 500VDC, 1 Minute

### Lifespan

50K Hours at full output power, 50°C ambient, Tcase <80°C

### Wire Connections

Position	Terminal Color	Specification
Line	Black	AWG18 Solid Wire
Neutral	White	AWG18 Solid Wire
Ground	Green/Yellow	AWG18 Solid Wire
Vout+	Red	AWG18 Solid Wire
Vout-	Blue	AWG18 Solid Wire
Dim+	Violet	AWG18 Solid Wire
Dim-	Grey	AWG18 Solid Wire
Aux	Yellow	AWG18 Solid Wire

### Warranty

5 Years

## PHIHONG TECHNOLOGY CO., LTD.

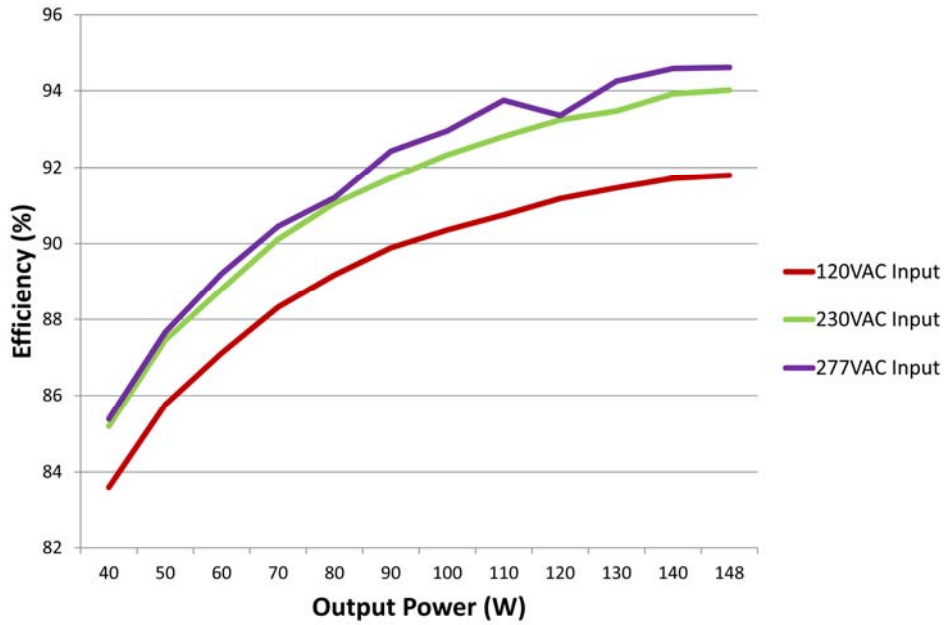
47800 Fremont Blvd., Fremont, CA 94538 • T: 1-510-445-0100 • [www.phihong.com/LED](http://www.phihong.com/LED)

Revision 7/2/2014

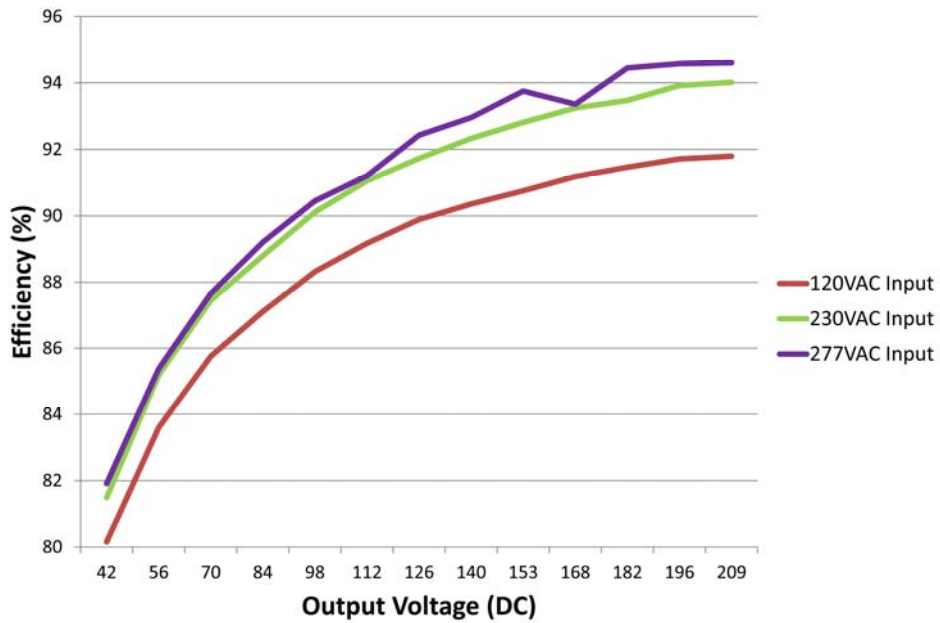


PDA150W Series	
Brand Name	Phihong LED Driver
Description	150W, 0-10V Isolated Dimming with 20V Auxiliary Output for Peripherals
Input Voltage	120 ~ 277VAC
Input Frequency	50/60Hz
Safety	CE, UL, RoHS
IP Rating	IP66

**Efficiency vs Output Power**



**Efficiency vs Output Voltage**



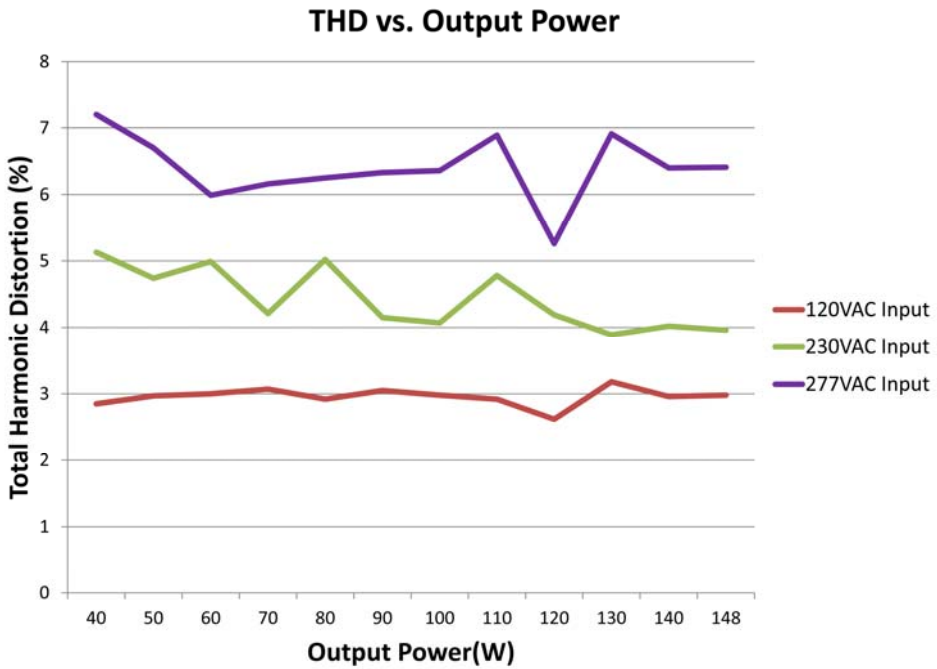
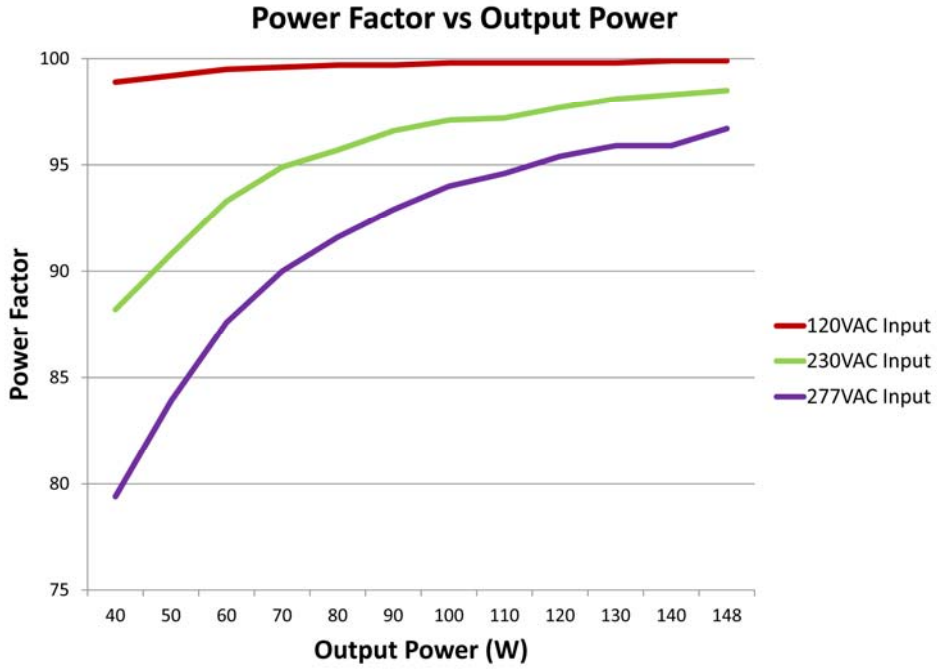
**PHIHONG TECHNOLOGY CO., LTD.**

47800 Fremont Blvd., Fremont, CA 94538 • T: 1-510-445-0100 • [www.phihong.com/LED](http://www.phihong.com/LED)

Revision 7/2/2014



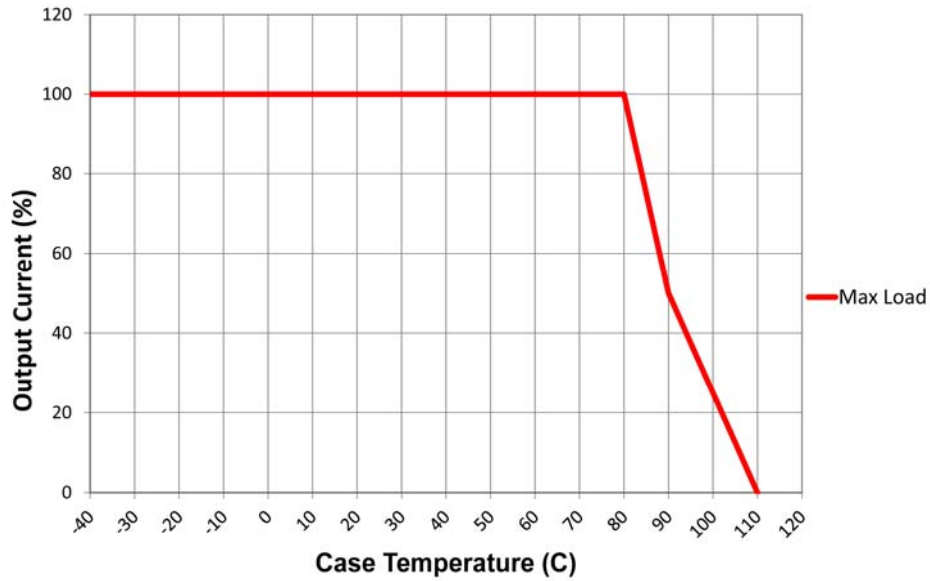
PDA150W Series	
Brand Name	Phihong LED Driver
Description	150W, 0-10V Isolated Dimming with 20V Auxiliary Output for Peripherals
Input Voltage	120 ~ 277VAC
Input Frequency	50/60Hz
Safety	CE, UL, RoHS
IP Rating	IP66



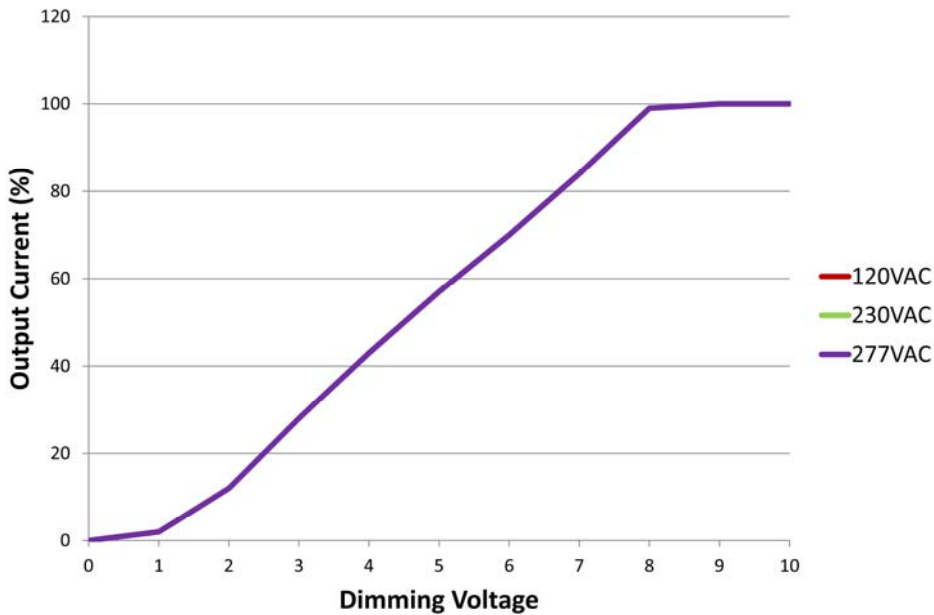


PDA150W Series	
Brand Name	Phihong LED Driver
Description	150W, 0-10V Isolated Dimming with 20V Auxiliary Output for Peripherals
Input Voltage	120 ~ 277VAC
Input Frequency	50/60Hz
Safety	CE, UL, RoHS
IP Rating	IP66

**Output Current vs. Case Temperature**



**Output Current vs Dim. Voltage**



**PHIHONG TECHNOLOGY CO., LTD.**

47800 Fremont Blvd., Fremont, CA 94538 • T: 1-510-445-0100 • [www.phihong.com/LED](http://www.phihong.com/LED)

Revision 7/2/2014